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(54) **IMAGE ENHANCEMENT METHOD AND APPARATUS FOR INTERNET PRINTING**

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(57) **ABSTRACT**

A method for enhancing a digital image for printing or
display on a high resolution device is described. The method
includes receiving a digital source image and selecting a
block of source pixels from the image. An edge array is
generated from edges detected in the block of source pixels
and processed with a set of logic operations to detect one of
a set of edge patterns. The source coordinate system is
transformed into a second coordinate system in response to
the detected edge pattern and a transformed source location
for the output pixel is determined. A modified transformed
source location is determined by applying a modifier func-
tion. The modifier function is selected from a set of functions
in response to the detected edge pattern. An effective source
location is generated by applying a reverse transformation.
The value of the output pixel is interpolated from the values
of the block of source pixels based on the effective source
location.

22 Claims, 15 Drawing Sheets

